

# Justin Tsai

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## EXPERIENCE

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### CPP Virtual Reality Lab

Pomona, CA

*Administrator (Paid-position)*

Aug 2018 - Present

- Lead and manage groups of students to develop VR/AR projects for presentation to industry sponsors.
- Mentor students by hosting workshops and code reviews to teach students basic Unity development.
- Work with lab equipment (HTC Vive Pro, Oculus Rift, and Microsoft HoloLens) and handle checkout of equipment to lab members.

## EDUCATION

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### California Polytechnic University, Pomona

Pomona, CA

*Bachelor of Science, Computer Science*

May 2019

GPA: 3.55, Dean's List all quarters

## PROJECTS

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### Spellbreaker VR

C#, Unity

- Currently developing a single player VR hack and slash game. The player will have to cut through a flurry of magic projectiles aimed at them using their swords.

### Isolation

Java

- Created a player vs computer console game coded in Java. The player has to outmaneuver the computer by trapping it with previously made moves.
- Implemented a min-max algorithm utilizing alpha-beta pruning with iterative deepening that the computer uses as a heuristic to make its moves.

### VR Wildfire

C#, Unity

- Worked on an existing VR research project that simulates the player being caught in a wildfire. The project records the users actions in that scenario and the time taken to perform them.
- Debugged errors by analyzing and rewriting existing code from scripts.

### UCTRONICS Self-Driving Car

C++, Arduino

- Collaborated in a team of 5 to develop a self-driving car with line tracking and obstacle avoidance.
- Helped implement script for obstacle avoidance and write documentation.

### VR Combination and Permutation

C#, Unity

- Collaborated in a team of 3 to develop a VR research project that tests the player's understanding of math concepts in an escape-room environment.
- Implemented scripts for player movement, controls, audio, and environment interactions.

## SKILLS

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- **Languages:** Java, C#, HTML, CSS, Javascript, Python, C++
- **Tools:** Unity, Visual Studio, Eclipse, NetBeans, Github Desktop, PuTTY, Android Studio